

10/532147

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number  
**WO 2004/038484 A2**

(51) International Patent Classification<sup>7</sup>: **G02B 21/32, 21/22, 21/36, G03B 35/00, H04N 13/00, G01N 15/14**

12439 Berlin (DE). SCHNELLE, Thomas [DE/DE]; Koppenstrasse 65, 10243 Berlin (DE).

(21) International Application Number:  
PCT/EP2003/011818

(74) Agent: HERTZ, Oliver; v. Bezold & Sozien, Akademiestrasse 7, 80799 München (DE).

(22) International Filing Date: 24 October 2003 (24.10.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

Published:

(30) Priority Data:  
02292658.8 25 October 2002 (25.10.2002) EP

— without international search report and to be republished upon receipt of that report

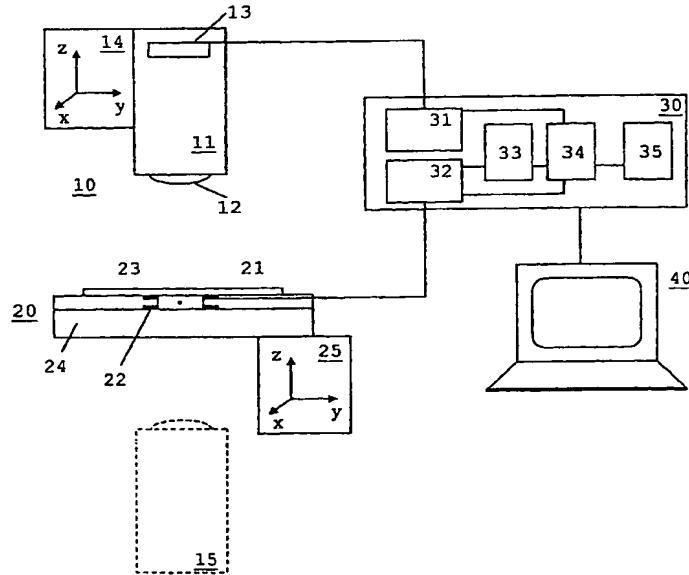
(71) Applicants (*for all designated States except US*):  
EVOTEC TECHNOLOGIES GMBH [DE/DE];  
Merowingerplatz 1a, 40225 Düsseldorf (DE). INSTITUT PASTEUR [FR/FR]; 25-28, rue du Docteur Roux,  
F-75015 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): SHORTE, Spencer [GB/FR]; 4bis, rue du Fond du Guichet, F-91400 Orsay (FR). MÜLLER, Torsten [DE/DE]; Hartriegelstrasse 39,

[Continued on next page]

(54) Title: METHOD AND DEVICE FOR 3 DIMENSIONAL IMAGING OF SUSPENDED MICRO-OBJECTS PROVIDING HIGH-RESOLUTION MICROSCOPY



**WO 2004/038484 A2**

(57) Abstract: A method for high-resolution image recording of at least one object with a microscope, comprises the steps of: positioning the object in a receptacle being arranged in the optical axis of the microscope, generating at least two first data sets per object which represent intermediate images of the object with at least two different orientations relative to the optical axis of the microscope, wherein the different orientations of the object are provided by moving the object relative to the receptacle, and evaluating the data sets for obtaining quantitative three dimensional information.

**WO 2004/038484 A2**



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*